contains electronics for a wireless voice and PCS like operations, one could use it for voice/data communications while carrying it about (i.e., in transport). The user may .speak towards one or more microphones **36** located along the top edge. The user will be able to hear the other person(s) talking, through audio speakers **30** located conveniently on the base unit. A small telephone keypad could be located behind a protective door **41**, for convenient dialing of a telephone number. The door may be a simple sliding door device or mechanism. The antenna **32** may be a sliding telescoping type. A simple display indicator **22** may show the electrical charge state of the battery source. A plurality of switches and indicators **46** may be located along one edge of the base unit for easy viewing and access. Such switches and indicators may include: an On-Off switch, Mode Switch (for voice, data, and video modes, etc.), high/low power transmit switch, ring/alarm mode and/or speaker/mic mode (for earset, handset, etc.). For securing the two halves of the base unit, a flap **43** made of a simple expanding material, which may include a snap means at one end and may be secured with a pin and/or pivot means. The flap would then snap to secure the flat panel display assembly **2** and cover assembly (**9**, **16**, **8**). In FIG. **3**(*a*), the flap **43** is shown rotated in the opposite orientation for clarity only. Other securing means may be embodied that are know to those in the art.

FIG. **4**(*a*) shows the portable computer system or computer-display unit **100** covered with a thin soft protective material or film, such as leather or vinyl. This material will protect the unit when it is bumped and/or banged into hard objects while in the use in field or office environments. The protective material may have a texture or roughen surface (as indicated in the figure), which would also provide for a relatively high mechanical friction; so it will be easier to carry under one's arm. Holes or cutouts may be embodied in the protective cover for viewing and/or using the various indicators, switches and keypads. A zipper securing means **45** may be embodied with the notebook, as shown in FIG. **4**(*a*). The zipper means may be attached to the leather or vinyl covers so that the unit can be zipped closed to secure and protect objects placed inside the notebook. A pull tab **45**A of the zipper means is shown in the figure. This embodiment would be especially applicable in rugged or harsh environments. A strap **50** may be attached to the unit so that the user may temporarily store it on a hook for example. FIG. **4**(*b*) shows an embodiment of the battery power source section **9**. As in previous embodiments, it may be detached from the notebook computer-display unit. A spring loaded pull out power cord **9**B may be embodied, so that the user-can conveniently pull out the power cord to electrically charge the package. The power cord and plug may be easily retracted inside a cutout space on the side of the subassembly. Several adjunct attachments and/or accessories may be carried in small compartments in the notebook unit. In addition, accessories and attachments may be carried in a separate briefcase or like carrying case (not shown in the figures). Such accessories may include a line power supply and cord, extra battery power source section **9**, spare earsets **34**, spare handsets **14**, external hard drive, external CD ROM drive, external mouse, spare styluses and/or spare video camera/lenses **46**.

An important advantage of this notebook computer unit invention is that it can be operational when it is in the closed configuration. Thus, while carrying the unit in one's hand or under one's arm, the user can perform voice, data and/or video communications. The notebook unit can be used in an open configuration on a desktop, airline tray or wide variety of other computing environments. The unit can be configured for wire based or wireless communication operations. The unit can be used for general purpose computing, network computing, pen input computing, PCS/Cellular, data/video conferencing, on-line network computing and data collaboration applications. The notebook unit can be used as a personal organizer or personal information manager, such as a computer equivalent of the Franklin Planner™ or equivalent planners. A multiplicity of personal computing applications may be embodied on its computer. The unit may be capable of wire or wireless communications, linking it to multiple handsets and earsets. The notebook computer unit may have a plurality of electrical connectors along the edges or other convenient locations for connection to a plurality of external devices, including but not limited to: modems, network interface cards, hard disks, floppy disks, and bus extender enclosures.

Preferably the notebook assemblies should be made relatively thin and light weight that would be an advantage in mobile use. For example, the flat panel display assembly **2** should have a thickness of roughly 0.75 inch or less. The cover assembly may be comprised of the battery power source section **9**, keyboard assembly **16**, and external communications section **8** should have a thickness roughly 0.75 inch or less; so that the folded total thickness of the unit could be 1.5 inches or less. However, an overall thickness of one inch (i.e. 0.5 inch for each half), or less, may be preferred. A keyboard unit located in keyboard section **16** that may be Model KFNR available from Alps Electric Co. Ltd. This keyboard unit has a thickness of 10 mm, a 3 mm key travel, a 1 mm over travel and a minimum key pitch of 18 mm. Alps Electric also has introduced a 7.5 mm height keyboard assembly a full size keyboard, capable of high speed typing without operator tiring.

FIG. **5** shows another alternate computer notebook embodiment, consisting of a somewhat smaller size flat panel assembly **2**, display screen **4**, pen/stylus means **7** and a roughly transparent display panel cover **17**. The flat display panel could be an LCD, FED, or other type of flat panel display. The panel cover **17** could be made of a hard rigid material or a durable soft polymer material that is roughly transparent to a range of electromagnetic radiation frequencies. This cover may be made optically transparent to let the ambient room light to impinge onto a plurality of photoelectric light sensors **41**A, **41**B and **41**C, which may be placed onto the display panel assembly **2**. The photovoltaic or photoelectric light sensors may convert ambient room light to electrical voltages. These sensors may provide power energy to power the unit. The sensors may also help change the unit's battery source. Thus, with the roughly transparent cover **4** closed over the display panel assembly, some light rays will be transmitted through the cover. Photons from the ambient light are converted to an electric voltage, via the sensors and energy conversion circuitry that is applied to the computer unit's power source. Even if the computer unit is turned off and cover closed, the sensor could still be charging its batteries. The roughly transparent cover **17** may be made flexible layers of polyester, polycarbinate or other suitable materials. An advantage of this embodiment is an improvement in maintaining power to the notebook unit for longer periods compared to prior art battery powered units. Information on the display screen may be viewable even with the cover **17** is closed over the flat panel display assembly **2**. Viewing of the display screen with the cover closed is an improvement over the opaque covers of conventional notebook computer and PDAs.

FIG. **6**(*a*) shows another embodiment of a thin light weight notebook computer or PDA unit. The cover panel **17**